

**CLAIMS:**

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AI
1. A method for facilitating speedy communication of packets between entities on a network, the method comprising:
    - sending a delay-disable command;
    - sending a set of packets from a sending entity to a receiving entity.
  2. A method as recited in claim 1, wherein the set of packets includes two packets sent back-to-back.
  3. A method as recited in claim 1, wherein the set of packets consists of a first bandwidth-measurement packet and a second bandwidth-measurement packet, wherein the second packet is sent immediately after the first packet.
  4. A method as recited in claim 1, wherein the network is TCP.
  5. A method as recited in claim 1, wherein the delay-disable command disables the Nagle Algorithm on one or more communication devices on the network.

1           6.    A method as recited in claim 1, wherein the delay-disable command  
2 is TCP\_NODELAY.

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4           7.    A program module having computer-executable instructions that,  
5 when executed by a computer, performs the method as recited in claim 1 at an  
6 application layer in accordance with an OSI model.

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8           8.    A computer-readable medium having computer-executable  
9 instructions that, when executed by a computer, performs the method as recited in  
10 claim 1.

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12           9.    A method for facilitating speedy communication of packets between  
13 entities on a network, the method comprising:

14                sending a set of packets from a sending entity to a receiving entity, wherein  
15 a transmission delay between packets in the set is intolerable;

16                immediately thereafter, sending at least one "push" packet to avert a  
17 transmission delay between packets in the set, wherein the delay is caused by  
18 packet buffering of a communication device on the network.

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20           10.   A method as recited in claim 9, wherein the set of packets includes  
21 two packets sent back-to-back.

1           11. A method as recited in claim 9, wherein the set of packets are  
2 bandwidth-measurement packets for measuring bandwidth between the sending  
3 entity and the receiving entity.  
4

5           12. A method as recited in claim 9, wherein the communication device  
6 is a proxy server.  
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8           13. A method as recited in claim 9, wherein the network is TCP.  
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10          14. A program module having computer-executable instructions that,  
11 when executed by a computer, performs the method as recited in claim 9 at an  
12 application layer in accordance with an OSI model.  
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14          15. A computer-readable medium having computer-executable  
15 instructions that, when executed by a computer, performs the method as recited in  
16 claim 9.  
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18          16. A method for facilitating speedy communication of packets between  
19 entities on a network, the method comprising:  
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21           sending a set of packets from a sending entity to a receiving entity, wherein  
22 a transmission delay between packets in the set is intolerable;  
23

24           immediately before, sending at least one "priming" packet to avoid a  
25 transmission delay between packets in the set, wherein the delay is caused by  
flow-control functions of a communication device on the network.

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2       **17.**    A method as recited in claim 16, wherein the set of packets includes  
3 two packets sent back-to-back.  
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5       **18.**    A method as recited in claim 16, wherein the set of packets are  
6 bandwidth-measurement packets for measuring bandwidth between the sending  
7 entity and the receiving entity.  
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9       **19.**    A method as recited in claim 16, wherein the network is TCP.  
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11       **20.**    A method as recited in claim 16 further comprising establishing a  
12 TCP connection between the sending entity to the receiving entity, wherein the  
13 establishing is just before the sending of the set of packets.  
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15       **21.**    A method as recited in claim 16, wherein the flow-control function  
16 is the Slow Start Algorithm.  
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18       **22.**    A program module having computer-executable instructions that,  
19 when executed by a computer, performs the method as recited in claim 16 at an  
20 application layer in accordance with an OSI model.  
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1           **23.** A computer-readable medium having computer-executable  
2 instructions that, when executed by a computer, performs the method as recited in  
3 claim 16.

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5           **24.** A method for facilitating bandwidth measurement between two  
6 entities on a network, the method comprising:  
7           sending a delay-disable command;  
8           sending a pair of bandwidth-measurement packets from a sending entity to  
9 a receiving entity.

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11           **25.** A method as recited in claim 24 further comprising receiving a  
12 bandwidth calculation based upon measurements related to the pair of packets.

13  
14           **26.** A method for facilitating bandwidth measurement between two  
15 entities on a network, the method comprising:  
16           sending a pair of bandwidth-measurement packets from a sending entity to  
17 a receiving entity, wherein a transmission delay between packets in the pair is  
18 intolerable;

19           immediately thereafter, sending at least one "push" packet to avert a  
20 transmission delay between packets in the pair, wherein the delay is caused by  
21 packet buffering of a communication device on the network.  
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1           27. A method as recited in claim 26 further comprising receiving a  
2 bandwidth calculation based upon measurements related to the pair of packets.

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4           28. A method for facilitating bandwidth measurement between two  
5 entities on a network, the method comprising:

6           sending a pair of bandwidth-measurement packets from a sending entity to  
7 a receiving entity, wherein a transmission delay between packets in the pair is  
8 intolerable;

9           immediately before, sending at least one "priming" packet to avoid a  
10 transmission delay between packets in the pair, wherein the delay is caused by  
11 flow-control functions of a communication device on the network.

12  
13           29. A method as recited in claim 28 further comprising receiving a  
14 bandwidth calculation based upon measurements related to the pair of packets.

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16           30. A computer-readable medium having computer-executable  
17 instructions that, when executed by a computer, perform a method to facilitate  
18 speedy communication of packets between entities on a network, the method  
19 comprising:

20           sending a delay-disable command;

21           sending a set of packets from a sending entity to a receiving entity.  
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1           **31.** A computer-readable medium having computer-executable  
2 instructions that, when executed by a computer, perform a method to facilitate  
3 speedy communication of packets between entities on a network, the method  
4 comprising:

5           sending a set of packets from a sending entity to a receiving entity, wherein  
6 a transmission delay between packets in the set is intolerable;

7           immediately thereafter, sending at least one "push" packet to avert a  
8 transmission delay between packets in the set, wherein the delay is caused by  
9 packet buffering of a communication device on the network.  
10

11           **32.** A computer-readable medium having computer-executable  
12 instructions that, when executed by a computer, perform a method to facilitate  
13 speedy communication of packets between entities on a network, the method  
14 comprising:

15           sending a set of packets from a sending entity to a receiving entity, wherein  
16 a transmission delay between packets in the set is intolerable;

17           immediately before, sending at least one "priming" packet to avoid a  
18 transmission delay between packets in the set, wherein the delay is caused by  
19 flow-control functions of a communication device on the network.  
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1  
2 36. A modulated data signal having data fields encoded thereon  
3 transmitted over a communications channel, comprising:

4 a first field including a delay-disable command

5 a second field including a first bandwidth-measurement packet;

6 a third field including a second bandwidth-measurement packet.  
7

8 37. A modulated data signal having data fields encoded thereon  
9 transmitted over a communications channel, comprising:

10 a first field including a first bandwidth-measurement packet

11 a second field including a second bandwidth-measurement packet;

12 a third field including a "push" packet facilitating minimization of  
13 transmission delay between the first and second packets, wherein the delay is  
14 caused by packet buffering of a communication device on the network.  
15

16 38. A modulated data signal having data fields encoded thereon  
17 transmitted over a communications channel, comprising:

18 a first field including a "priming" packet;

19 a second field including a first bandwidth-measurement packet;

20 a third field including a second bandwidth-measurement packet;

21 wherein the "priming" packet facilitates minimization of transmission delay  
22 between packets, wherein the delay is caused by flow-control functions of a  
23 communication device on the network.  
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